

"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRL #8170
Echolink #322788



<http://www.gearsw6rhc.org>

P.O.Box 508 Chico, CA 95927-0508

Founded: August 13, 1939

May, 2016

Coming Events

O.A.R.S. GENERAL MEETING

Second Friday, of month, 7:00 p.m., at St. Paul's Church Parrish Hall, 1430 Pine St., Oroville

G.A.R.S. Second Thursday of month, 4:30 p.m. Lutheran Church Hall, Artois; 4:30 p.m.

G.E.A.R.S General Meeting, third Friday of month, Butte County Search and Rescue Bldg., Chico. Social hour 6:30, meeting at 7:00.

Board Meetings: 2nd Saturday of month

Butte A.R.E.S. MEET: fourth Friday, at Butte County Search and Rescue Building.

FCC EXAMS - GEARS VEC

First Sunday of every even numbered month. At the Butte County Search and Rescue Building. Written test at 2:00 p.m. For information or pre-registration call Tom Rider -W6JS; 530-893-9211

Club Events: News and items of interest
GEARS Calendar...all inside.

Website: www.gearsw6rhc.org
www.gearsw6rhc.org



Picture courtesy EVARC

The Prez' Says:

QST de KA6GND

Busy and active times are coming up for our club – let's hope that the bands are busy and active as well!



Thank you Anna, KG6ZOA for chairing the Wildflower effort again this year. I know that you put a lot of effort getting operators and organizing the event.

This month is our big auction of the year. Find those items in your shack that are collecting dust, they may be just the item that another ham would treasure to have. This event is an important fundraiser for our club, so spread the word and let's make this the biggest and most fun auction that we have ever had!

It's hard to believe but Field Day is next month. It seems like we were just talking about how it is several months away. This is a great opportunity for us to come together, operate in the mountains, meet new friends, and mentor or be mentored in expanding our operating skills and knowledge. And guess what – we can have a whole lot of fun doing so! If you would like to be part of this historical tradition, please contact our Field Day Chair Michael Favor, N6FAV as soon as possible.

At our July 15th meeting we will have a very special guest speaker – Bob Heil, K9EID. Bob is the founder of Heil Sound, an innovator in speakers, microphones and just about anything dealing with sound. His Heil microphones are used throughout the world in ham shacks and professionally on stage and in studios. Since Bob's QTH is in Missouri he will be joining us via Skype. If you have ever watched him as moderator on Ham Nation (www.twit.tv/shows/ham-hanmtion) or heard him interviewed, you know that he is a wealth of information not just on sound but antennas, grounding systems and many other aspects of ham radio.

73 for now, and remember - The Sky's the Limit with Amateur Radio!

Larry Marcum, KA6GND.

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Board of Directors Meeting: Apr 9 2016

ATTENDANCE All present.

MEMBERSHIP APPLICATIONS:

New members David Wilkinson WB6IDF, Bob Wirth, KC6UIS and Debbek Mueller KM6AGS.

OLD BUSINESS:

Minute of Mar 12 board meeting approved.

Treasurers report:

Rick requests that an audit committee be formed and that he be given authorization to change banks. He also requests that he change insurance carrier to ARRL.

NEW BUSINESS:**Committees:**

Raffle: Good for now.

Field Day: Still looking for band captains.

Net Manager: Possibly adding a Elmer section to the net.

VEC: Three new techs and one renewal. VE test on 5 June.

Wildflower: Still need to fill spots. There will be eight sag wagons and transport vans. The main freq. will be 145.290 with 146.850, 147.105 as secondary. Shirts may be a little late. Riders will have a wrist band.

Classes: No classes till June or July.

Programs: May program will be the auction.

Repeater Trustee: Larry is now the club's licensed repeater trustee.

Survey: We got 32 response's.

ADJOURNMENT: 11:10 am

Dale Anderson,
Secretary

**MINUTES OF GENERAL MEETING for Apr 15 2016****Introductions:**

PROGRAM: Mesh Network by Scott KE6VUS.

ATTENDANCE: Larry not present.

ANNOUNCEMENTS:

A club a breakfast Sat Apr 23 Farmers Skillet. 9am.

Next board meeting is on May 14 at 9am at BloodSource.

May 20 will be our auction.

Club net every Tuesday.

June will be field day.

July Bob Hiel K9EID, ham nation via Skype

Stephen McDermott will Work All States.

Repeater tsq1 is now active.

The club has updated its' special club status with ARRL.

Open mike: Dr Carol F. Milazzo, KP4MD the new ARRL Section Chief visit.

VEC: APR 3rd. Three new techs and one renewal.

MINUTES: Approved the minutes from Mar meeting.

TREASURER: The treasurer report approved.

Field Day: Bands still open first come first served. Need band captains.

Wildflower:

Currently missing a few people for locations. There will be eight sag wagons and transport vans. The main freq. will be 145.290 with 146.850, 147.105 as secondary. Shirts may be a little late. Riders will have a wrist band

ADJOURNMENT: 20:38 hr.

Dale Anderson,
Secretary

About K9EID – Bob Heil

In 1966 Bob Heil came back to his home town of Marissa, Illinois and opened Ye Olde Music Shop, one of the country's first pro audio stores where he also sold Hammond organs. He would also fix the organs on stage before a performance for the musicians. Noticing that some PA systems were small, and some did not produce full range sound and some could not project into a large crowd, Bob Heil started creating very large PA systems. Heil Sound began managing the sound in several venues around St. Louis, from auditoriums to bowling alleys. The company experienced its first breakthrough on February 2, 1970, when Bob Heil and his sound team successfully created a new and innovative sound system for The Grateful Dead at the Fox Theater in St. Louis after the Dead's former sound engineer Augustus Owsley Stanley III was incarcerated. Heil Sound then accompanied the band on tour, later accompanying The Who, The James Gang, Jeff Beck, ZZ Top, Humble Pie, Seals & Croft, Bachman-Turner Overdrive, Leslie West, J. Geils, Ike and Tina Turner, and Chuck Berry.

In 1973 Bob Heil invented the Heil Talk Box, which was the very first high-powered Talk Box to be placed on the market. Heil Sound created the first one to be used on Joe Walsh's Barnstorm Tour. The product became a signature sound for Joe Walsh, Peter Frampton and Bon Jovi. Heil Sound later sold the rights to Dunlop Manufacturing, Inc., where it continues to be a popular product.

Around 1980 many of the large acts Heil Sound was working with were no longer touring. According to Heil, "Punk rock was the direction that music was going, and there was no challenge for me in that, so I quit [touring]." Heil began listening again to ham radio, and after feeling that the sound quality was still "mushy with no articulation," began working on microphones. Heil Sound entered the amateur radio market, ostensibly working to fix what he perceived as problems in the industry involving poorly transmitted and received audio. Bob Heil developed lines of radio headsets and components.

In 1982 Heil Sound introduced their HC Series elements, specifically the HC-4 and HC-5, which allowed the non-DSP transmitters of the time to produce different sounding audio by changing microphone elements. The most recent is the HC-6, which is used in many of their current microphone models. Heil Sound was also an early installer of large satellite dishes for radio.

On May 24, 2011 Bob Heil became host of a new net cast show on Leo Laporte's TwiT.tv network called "HamNation". The show focuses on subject matter for the ham radio enthusiast. Bob's first guest was rock star, friend and avid amateur radio operator, Joe Walsh, who also wrote the theme music.

Heil Sound has been invited to exhibit at the Rock and Roll Hall of Fame. Bob Heil was also named the Innovator of the Year at the Parnelli Awards in 2007. In 1989 Heil Sound was named "USA Satellite Dealer of the Year" by the Satellite Broadcasting and Communications Association in Las Vegas.

The above material adapted from Wikipedia, The Free Encyclopedia.

It's officially in the books: the 35th Wildflower Century is done. As the Radio Team Captain, I want to thank all of the hams who were out there, doing us proud on the 24th of April. There were three volunteers from the OARS group (Ron, Stan and Marilyn) who stepped forward and spent time out there on a beautiful day. I never got an exact count of total riders, but close to 400 made the trip up Coutelenc and Skyway to visit Stirling City and almost 600 hardy souls checked out the wildflowers blooming on top of Table Mountain. No guarantee that everyone made the entire trip in each of those directions, but counters at strategic locations came up with those numbers.

Three of our most faithful were not on the lines this year. Dick, Jim and Evelyn opted out for health reasons and were sorely missed. We had newcomers to help fill in: welcome to Debbie who was at Spring Valley School, Rob who manned the post at Thermolito and Carl who joined Stephen on Table Mountain. Thank you one and all.

Between the hams and the members of the Butte County Sheriff's Communication Reserve with Gary McElroy as Safety Captain; I think we had a total of six treatable injuries, the most serious was a possible concussion. Hams transported some of the injuries to medical teams and then returned to stations. I'm hoping that the comm van made a recording of the air traffic so I can get a copy of the section when it was most active. I have been involved in several SET exercises in the past, and personally, I think we sounded very professional, especially the newbies with Comm Reserve who were net controls.

Again, thanks to the hams and reserves who helped make this another great event for Butte County. Current plans are for an appreciation party on July 10 hosted by ChicoVelo with food, prizes, drinks and other goodies. I'll keep you all in the loop as to location (if it changes) date and time. And most of you got the lovely Pistachio green Tee-shirts and hit the Fairgrounds for the catered meal after the ride. Until next year when I start pestering you again to volunteer to help,

Sincerely; Anna Horn KG6ZOA

I'm EXTRA Ignorant

By Dan Romanchik, KB6NU

On Sunday, I received the following e-mail from a reader:

"Just wanted to let you know I passed the General exam using your study guide. It was very helpful. I am now generally ignorant whereas before I was only technically ignorant. Ha!"

My reply to him was:

"Well, if you're generally ignorant, I guess that makes me EXTRA ignorant!"

This isn't just a joke--being ignorant is part of the hobby. Amateur radio operators will always be ignorant about something or other. Even if you could master every facet of the hobby at some point in time, your mastery would be short-lived as the technology continued to advance.

Over the course of my amateur radio career, we've gone from equipment that primarily used vacuum tubes, to solid-state gear that first used discrete transistors and then integrated circuits, to software-defined radios. I could have, at some point, simply given up on the new technology and still enjoyed amateur radio. Some guys do that, and that's OK. It is only a hobby after all.

I'm not one of those guys, though, and if you're not one of those guys, then you have to resign yourself to being ignorant. But, that's a good thing, as long as you realize that you're ignorant. Realizing that you're ignorant will spur you on to learn new things and accept new challenges.

Recently, I realized that I'm mostly ignorant about satellite operation. I know some of the basics from having read articles and writing

about the topic in my study guides, but I have never made a contact using a satellite. I think that might be one of my next challenges. With the advent of CubeSat, there are many new satellites up in the air and many more **opportunities** to have interesting contacts.

So, what are you ignorant about? By that I mean, of course, what's going to be your next challenge in amateur radio?

=====

When he's not challenging himself with new things, Dan falls back on something he knows pretty well--operating CW. You'll find him mainly on the 80m, 40m, and 30m bands.



Don't Miss this once yearly event!





Honored visitor, Dr. Carole Milazzo , KP4MD, Section Manager , greets Rick Hubbard, KI6VOS, Club Treasurer.



Les Cobb-W6TEE, Assistant Section Manager also visiting.



Scott Petersen-KE6VUS , presenting his program on “Broadband-Hamnet” .



Attentive audience: Dr. Carole Milazzo-kp4md; Mike Ellithorpe -kf6obi, Bob Wirth-kc6uis, Klaus Keil, kd6gte in front row.



2016 GEARS HAM AUCTION

One person's "junk" is another's treasure!

Bring your unused treasurers to the auction. Items may

be donated fully, in which case all proceeds from its sale remand to the club. Bring it as a personal sale item, the Club retains 10% of the sale price. Sellers may establish a minimum price below which the item may not be sold.



Remember: What you bring you take home if it (gasp!) does not sell!!

**The auction is a fun evening,
Be sure to come and enjoy!**



MAY 20—MEETING—"See Ya there!"

DO YOU HAVE OLD QST MAGAZINES IN SEARCH OF A NEW HOME?

Gene Wright has that future home for that QST, through his project to place QST Magazines in professional offices of throughout Chico.

Labels placed on the QST's will advertise the Golden Empire Amateur Radio Society and Encourage the readers to consider Ham Radio as an interesting hobby of not only fun, but With potential for community service of many Facets.

Bring the QST's to the Club meetings or contact:

Gene –WA6ZRT–530- 345-3515.



Caps embroidered with your name and your call sign may be ordered by contacting WA6ZRT -Gene Telephone #530 -345-3515

VEC TESTING
2:00 p.m.
June 5, 2016
August 7, 2016

**AT BUTTE COUNTY
SEARCH & RESCUE
BUILDING**

**All Classes
Technician, General and
Extra.**

Contact:
Tom Rider-W6JS
530-893-9211



Rustyboy rider@aol.com

FCC Invites Comments on Petition to Eliminate 15 dB Gain Limit on Amateur Amplifiers

04/27/2016 (arrl newsletter)

The FCC has put on public notice and invited comments on a *Petition for Rule Making* (RM-11767), filed on behalf of an amateur amplifier distributor, which seeks to revise the Amateur Service rules regarding maximum permissible amplifier gain. Expert Linears America LLC of Magnolia, Texas, which distributes linears manufactured by SPE in Italy, wants the FCC to eliminate the 15 dB gain limitation on amateur amplifiers, spelled out in §97.317(a)(2). Expert asserts that there should be no gain limitation at all on amplifiers sold or used in the Amateur Service.

“There is no technical or regulatory reason [that] an amplifier capable of being driven to full legal output by even a fraction of a watt should not be available to Amateur Radio operators in the United States,” Expert said in its *Petition*.

Expert maintains that the 15 dB gain limitation is an unneeded holdover from the days when amplifiers were less efficient and the FCC was attempting to rein in the use of Amateur Service amplifiers by Citizens Band operators. While the FCC proposed in its 2004 *Notice of Proposed Rulemaking and Order* in WT Docket 04-140 to delete the requirement that amplifiers be designed to use a *minimum* of 50 W of drive power and subsequently did so, it did not further discuss the 15 dB amplification limit in the subsequent [Report and Order](#) in the docket.

“Although no party advocated retention of the 15 dB limit, it remains in place today,” Expert pointed out in its filing. “In the intervening years, advancements in Amateur Radio transmitter technology have led to the availability of highly compact, sophisticated low-power transmitters that require more than 15 dB of amplification to achieve maximum legal power output. Therefore, Expert seeks to remove the 15 dB limit from §97.317 so that Amateur Radio manufacturers and distributors will not be forced to needlessly cripple their amplifiers for sale in the United States.”

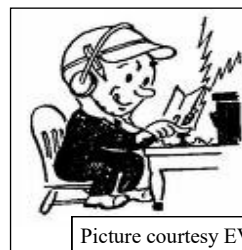
Expert pointed to its Model 1.3K FA amplifier as an example of a linear “inherently capable of considerably more than 15 dB of amplification,” which would make it be forced to needlessly cripple their amplifiers for sale in the United States.”

Expert pointed to its Model 1.3K FA amplifier as an example of a linear “inherently capable of considerably more than 15 dB of amplification,” which would make it a suitable match for low-power transceivers now on the market having output power on the order of 10 W.



REMEMBER AUCTION NIGHT

THIS MONTH'S MEETING!



Picture courtesy EVARC

Annual Armed Forces Day Cross-Band Communications Test Set for May 14

The Armed Forces Day Military/Amateur Radio Cross-Band Communications Test, sponsored by the US Army, Air Force, Navy and Coast Guard, will take place on Saturday, May 14. The event gets under way at 1200 UTC, with activity continuing throughout the day. Some military stations may not operate for the entire period.

New for Armed Forces Day this year, military stations and Amateur Radio operators are authorized to directly communicate on the 60 meter interoperability channels," US Army MARS Program Manager Paul English, WD8DBY, pointed out. Forces Day ([AFD](#)), observed on May 21. The Military/Amateur Radio Cross-Band Communications Test is held earlier, in order to avoid conflicting with Dayton [Hamvention](#)®.

The annual exercise is an opportunity to test two-way communication between amateur and military communicators. It features traditional military-to-amateur cross-band SSB and CW communication and offers an opportunity for radio amateurs to utilize modern military communication modes such as MIL-STD serial PSK and automatic link establishment (ALE). These tests challenge Amateur Radio operators and shortwave listeners (SWLs) to demonstrate individual technical skills and to receive recognition from military radio stations. The [complete announcement](#) -- subject to change -- is available on the US Army MARS website.

Participating military stations will transmit on selected military frequencies and listen for Amateur Radio stations on selected amateur frequencies, which the military station operator will announce.

Amateur Stations with automatic link establishment ([ALE](#)) capability can contact military stations on specific half-duplex cross-band channels established for this purpose. Military stations will scan and receive certain Amateur HFLINK ALE frequencies, and transmit on the corresponding military ALE frequency. Military stations will also transmit ALE station identification (soundings) on each military frequency at 30 to 90-minute intervals.

The traditional Secretary of Defense message will be transmitted via Military Standard radio teletype modes, described in MIL-STD 188-110A/B. Reception of serial PSK will provide a technical challenge to amateur stations to receive the broadcasts using a high symbol rate serial PSK waveform not utilized in Amateur Radio, but found in all modern military equipment. See the complete schedule for details. Additional transmissions will use wide-shift FSK (RTTY), as this mode represents a baseline in interoperability common in all radio services. Most RTTY programs can be set to decode this mode. To accommodate amateurs some stations will transmit the Secretary of Defense message using common ham radio modes such as RTTY, PACTOR, AMTOR, PSK31, MFSK and MT63.

Transcripts of the received text should be submitted "as received," without attempting to correct possible transmission errors. Provide time, frequency and call sign of the military station copied, including the submitter's name, call sign, and address (with ZIP code). This information should appear on the paper containing the test message.

Stations copying the Secretary of Defense message from Army and Navy stations should send their entries to Armed Forces Day Celebration, Commander Netcom, ATTN: NETC-ITSMD, Bldg 90549 Jim Ave, Fort Huachuca, AZ 85613-7070.

Stations copying Secretary of Defense message from Air Force stations, should send entries to Armed Forces Day Celebration, 38CYRS/Chief AF MARS, 203W Losey St, Room 1200, Scott AFB, IL 62225.

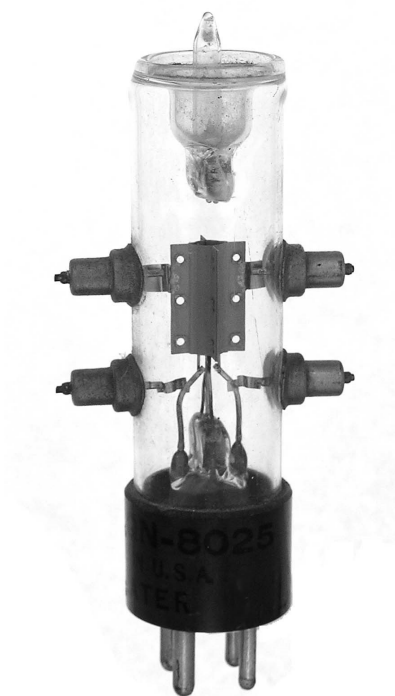
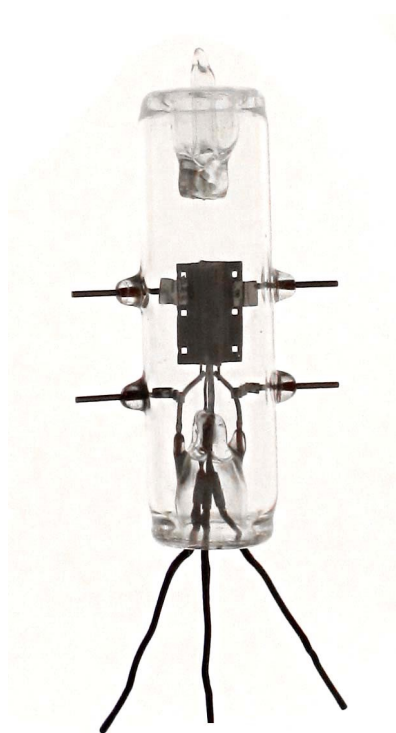
Tube of the Month

8012 - 8025

At the beginning of WWII, 200 MHz was considered UHF. As the War progressed, there was a race to operate at ever higher frequency. With each step in frequency, there would be a few months of advantage until the opposition caught up or went even higher. One of the first big jumps was to 500 MHz. RCA and GE produced several UHF tubes including the 8012 and 8025. The design involved taking a triode of standard construction and making it operate at 500 MHz by minimizing the length of the plate and grid leads. The exhaust stem was put into the top of the tube so as not to interfere with the filament length. This construction makes these tubes very rugged and they could be used in ring oscillators. Electrically the tubes are the same. The 8012 has no base and pins that allow the tube to clip into it's circuit. The 8025 has a standard 4 pin base and more conventional contacts. These tubes had a dissipation of 40 watts.

This design didn't survive for long after the War, but a few devices incorporated them. The 8012 was used in the APQ-9 radar jammer and the 8025 was used in the AN/ CRN-2 air transportable glide path transmitter.

Visit the museum at N6JV.com
Norm N6JV



The GEARS Newsletter Staff:

Editor and Publisher.....Dorothy Post
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Website...Stephen McDermott W6AKF

The Radiator is a monthly publication of the Golden Empire Amateur Radio Society (GEARS). It is the policy of the Editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio, of interest to GEARS members, and space is available. Please send all submissions to the Editor – Dorothy Post by the last day of the month through the following medium:
 E-mail: dj@posthouse.us

Club Officers: (Board of Directors)

PresidentLarry Marcum-ka6gnd
 Vice President..... Stephen Wolske-kf6hss
 Secretary Dale Anderson-kk6evx
 Treasurer.....Rick Hubbard-ki6vos
 Past PresidentAnna Horn Kg6goa
 Director..... Tom Rider-W6JS
 Director.....Gene Wright-wa6zrt
 Director.....Raymond Foulks-kg6mrk

Club Meetings

General Meeting Third Friday 7:00 PM
Board Meeting Second Saturday

GEARS Club Net

Tuesdays 8:00 PM 146.850 MHz-PL 110.9

**GARS Club Net:Monday,7:00 pm 147.105+Mhz
 PL 110.09**

Thursdays Simplex Net 7:30 p.m. 146.52

Sacramento Valley Traffic Net

Nightly 9:00 PM 146.850 MHz-PL 110.9

ARES Nets:

Butte Mondays 20:00 146.850 MHz-PL 110.9
Yuba Sutter Thursdays 19:00 146.085+MHz PL 127.3
Glenn Thursday 19:30 147.105 MHz +PL 100.0

Other Nets:

**Sac Valley Section Net—7:00 PM 2nd Wed of the month
 146.085 MHz+PL 127.3**

440 Wed. Night 8:00 PM Wednesday 440.650 MHz

Golden Bear 7:00 PM Daily 3975 kHz

Willie Net 8:00 PM Mondays 1930 kHz

**Western Public Service System (WPSS)
 7:30 PM 3952 kHz**

**ARISS (International Space Station) Uplink 144.490
 MHz Downlink 145.800 MHz**

Hope-1 satellite: all uplinks are in 145Mhz band:

All downlinks are in 435Mhz band

**...California Traffic Net: 3906 KHz nightly @6:00 pm
 For traffic listing & @6:30 p.m. for roll call.**

Hamfest/Conventions

- **05/06/2016 |**

**West Coast Military Radio Collectors Group's
 21st Annual Meet**

Location: San Luis Obispo, CA Type: ARRL Hamfest
Sponsor: West Coast Military Radio Collectors Group
Website: <http://www.mrcgwest.org> [Learn More](#)



- **5/15/2016 |**

North Hills Radio Club Hamfest

Location: Carmichael, CA Type: ARRL Hamfest Spon-
sor: North Hills Radio Club Website: <http://k6is.org>
[Learn More](#)

**ARRL EXPO**

at 2016 Dayton Hamvention®
May 20, 21, 22 -- 2016

**Where: Dayton Hamvention at the Hara Arena Conference and
 Exhibition Center, 1001 Shiloh Springs Road Dayton, OH 45415**

**Official websites: hamvention.org; www.arrl.org/expo;
www.haracomplex.com**

ARRL, the national association for Amateur Radio®, welcomes all members and friends to Dayton Hamvention®. Use this handy guide to find ARRL-sponsored activities, exhibits and program representatives. ARRL EXPO is a large exhibit area located in the Ballarena Hall (near the 400-numbered booths).

Rick Roderick, K5UR – ARRL President
Dale Williams, WA8EFK – Great Lakes Division Director
Thomas Delaney, W8WTD – Vice Director
Scott Yonally, N8SY – Ohio Section Manager

Interested parties will find complete details for Hamvention at hamvention.org. For information about ARRL and Amateur Radio, visit www.arrl.org and www.arrl.org/what-is-ham-radio.



Date	Time	Event	Location	Contact party
Sunday, June 5, 2016 August 7	2:00 p.m.	VEC—Exams	Butte Co. Search & Rescue Building 2591 Morrow Lane, Chico	Tom Rider 530-893-9211
Thursday May 12, 2016	4:30 p.m. Board and General Meeting .	GARS-Glenn Glenn Amateur Radio Society General Meeting, & Amateur Radio Emergency Services	Lutheran Church Hall: 565 Main Street Artois	Albert Leyva 530-567-5979
Friday, May 13, 2016		OARS Oroville Amateur Radio Society General Meeting	St Paul's Church Parrish Hall 1430 Pine Street Oroville	Ron Osborne-kd7uhf 530 589 1834 kd7uhf@yahoo.com
Saturday May 14, 2016	Board meet: 9:00 a.m.	GEARS Board of Directors Meet Members are Invited!	Blood Source Blood Source Bldg 555 Rio Lindo Ave	Larry Marcum, KA6GND 530 345 5399 ka6gnd@gmail.com
Friday May 20, 2016 AUCTION	General Meeting Social 6:30 p.m. Program: At 7:00 General meeting 8:00 p.m.	GEARS Golden Empire Amateur Radio Society	Butte County Search and Rescue Building 2591 Morrow Lane Chico	Larry Marcum, KA6GND 530 345 5399 ka6gnd@gmail.com
Saturday June 25, 2016	GEARS Club Breakfast 9:00 a.m.	GEARS	Farmer's Skillet Corner of Rio Lin- do & Cohasset Chico	

Donations to GEARS are TAX DEDUCTIBLE

We are a 501 c 3 organization, and as such, donations cash, or materials, donated to GEARS are Tax deductible. When you donate to GEARS, be sure you receive a letter of acknowledgment from our Secretary as proof of the donation and its value for the State and Federal Tax Authorities. This is a win-win for GEARS and for you, the member or the party donating!

Free of charge to ARRL members...[Subscribe](#) to the *ARES E-Letter* (monthly public service and emergency communications news), the *ARRL Contest Update* (bi-weekly contest newsletter), Division and Section news alerts -- and much more! And did you know: You may Find ARRL on [Facebook!](#) Or Follow ARRL on [Twitter!](#)